A Guide to a Guidance Statement on Screening Guidelines

In this issue, the American College of Physicians (ACP) Clinical Guidelines Committee presents its assessment of the quality and content of 7 English-language guidelines for breast cancer screening (1). The results of the assessment are 4 guidance statements that provide clarity and simplicity amidst the chaos of diverging guidelines. ACP guidance statements represent convergence across differing recommendations while highlighting important points for physicians to consider in shared decision-making conversations with their patients about routine breast cancer screening.

Variability in the interpretation of medical data has long been studied (2) and is a known phenomenon in breast cancer screening, both in radiologists' subjective interpretation of mammograms (3) and in objective interpretation of data from randomized clinical trials. Indeed, there is also marked variability in the makeup of screening guideline bodies, and research has shown conflict-of-interest issues related to authors' clinical specialties in earlier mammography guidelines (4). Of note, even among the members of the ACP Clinical Guidelines Committee, assessment and quality ratings varied considerably. These ACP guidance statements were developed after review of guidelines familiar to most screening stakeholders, including guidance from the U.S. Preventive Services Task Force, American Cancer Society, American College of Radiology, American College of Obstetricians and Gynecologists, Canadian Task Force on Preventive Health Care, National Comprehensive Cancer Network, and the World Health Organization.

The Committee ultimately agreed on 4 general guidance statements: First, in average-risk women aged 40 to 49 years, clinicians should discuss whether to screen for breast cancer with mammography before age 50 years. Discussion should include the potential benefits and harms and a woman's preferences. Potential harms outweigh benefits in most women aged 40 to 49 years. Second, in average-risk women aged 50 to 74 years, clinicians should offer screening for breast cancer with biennial mammography. Third, in average-risk women aged 75 years or older or in women with a life expectancy of 10 years or less, clinicians should discontinue screening for breast cancer. Fourth, in average-risk women of all ages, clinicians should not use clinical breast examination (CBE) to screen for breast cancer.

Although these ACP guidance statements are intended for a target population of "average-risk" women, the authors point out that the definition of "average risk" varies across guidelines. The implications of "average" differ for various stakeholders and may be based on subjective assessment. A significant proportion of women at low to normal risk perceive their risk for breast cancer as markedly increased (5), and a significant proportion of radiologists working in breast imaging perceive women's risk for breast cancer as higher than it is (6). The ACP considers women with dense breast tissue on mammography and no other risk factors to be at average risk. Because just under half of all women have dense tissue on mammography, this would seem reasonable. However, when the average risk of dense breast tissue is combined with other risk factors that also indicate average risk in isolation (such as early menarche, late menopausal onset, oral contraceptive or menopausal hormone therapy, or a single family member with a history of postmenopausal breast cancer), a woman may no longer be at average risk. As more states and even the federal government consider adding notification requirements about breast density, we can increasingly expect women to express concerns to their providers about whether they are at increased risk (7–9).

Although the ACP Committee recommends detailed discussions about personalized screening preferences during clinical visits, such assessments take time that is in short supply in routine clinical practice. Valuable time could be saved if risk assessments were done beforehand. For example, risk factor data routinely collected at the time of imaging can be used to automatically embed risk calculations in mammography reports to help women and their providers in making informed and personalized screening choices (10).

The ACP Committee also highlights areas where guidelines agree that clinical deimplementation needs to be considered. Indeed, in clinical medicine we often continue medical practices despite floccinaucinihilipilification (that is, an estimation of something as having little or no value). Most guideline groups now conclude that CBE for screening is of low value and may harm patients, yet CBE is performed in nearly 1 in 4 preventive visits for asymptomatic women of screening age (Lee CI. Unpublished data.). The accuracy of physicians' performance in such examinations in the general community setting is low, and the risk for false-positive results ranges from 2.2% to 5.0% for CBE alone and from 3.0% to 8.7% for CBE with subsequent mammography according to the ACP report (1). Thus, despite the data and concerns about screening harms, CBE is still being used for screening at a high rate, leading to unnecessary anxiety, diagnostic work-up, and interventions. At least for women who can readily access screening mammography, CBE is a low-value practice that needs to be more explicitly targeted for deimplementation.

Over the past decade, screening guidelines have increasingly added statements on when to stop screening, such as when a woman's life expectancy is less than 10 years. Unfortunately, missing from these guidelines is advice on how clinicians should go about deimplementation. We need reliable ways to determine life expectancy given comorbid conditions, as well as methods to appropriately manage the discussion about stopping screening. "Sorry, but it is not worth screening you since you probably are not going to live another

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decade" is not an acceptable response to patients during this sensitive discussion. The cessation of routine screening is a highly uncomfortable situation for which we as clinicians currently have little guidance and few tools.

At this crossroads of confusion, we need a clear path toward informed, tailored, risk-based screening for breast cancer. It is our hope that future guidance statements will move beyond emphasizing variation across guidelines and instead provide more advice on how to implement high-value screening and deimplement low-value screening. Until we have automated, technologic solutions that assess risk status and validated practices for having difficult conversations about informed decision making, physicians are left to use their best judgment based on available research and expert recommendations. The ACP guidance statements shed light on these points but do not clearly illuminate the full path ahead for every woman.

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